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FURTHER RECORDS OF DUNG BEETLES (COLEOPTERA: SCARABAEIDAE) FROM THE TOOWOOMBA DISTRICT

By P. G. Allsopp

Department of Primary Industries, P.O. Box 102, Toowoomba, Qld., 4350.

Abstract

Further collecting of Scarabaeidae at baited pitfall traps and natural food sources has revealed the presence of another eight species at the five sites previously examined. Thirteen species taken at two additional sites and further seasonal and host records are also given.

Introduction

Previously the results of trapping dung beetles at five sites in the Toowoomba area, south-east Queensland, were enumerated (Allsopp, 1975). Since July 1974 trapping using excrement and fish bones has continued at these sites. In addition traps were set out at two other localities with different vegetation and soil types; at Leyburn, 65 km south-west of Toowoomba, in open forest with sandy soil and at Evanslea, 40 km west of Toowoomba, in pasture on deep black clay soil. Natural food sources such as cow and sheep dung and mushrooms were examined for scarabs whenever the opportunity presented itself.

As well as these records Matthews (1976) in his revision of the Australian Coprini provided four records from the Toowoomba district; *Notopedaria geminata* (Macleay) and *N. pratensis* Matthews from Toowoomba and *N. interrupta* (Carter) from Ravensbourne and Middle Ridge (a suburb of Toowoomba).

In the following list the terms "rare", "few" and "common" have the same meanings as stated in Allsopp (1975). Those species which were recorded in that paper are marked here with an asterisk.

List of species

SCARABAEINAE

1. *Onthophagus muticus* Macleay—Toowoomba; human excrement; few; December to January.

2. *O. parvus* Blanchard—Leyburn; mushrooms; few; March.
3. *O. peramelinus* (Lea)—Ravensbourne (rainforest); at ultra-violet light; rare; January.
4. *O. quinquetuberculatus* Macleay—Evanslea; cow dung; common; October to March.
5. **O. atrox* Harold—Flagstone Creek, Leyburn; cow, horse and sheep dung and in burrows; common; November to March.
6. **O. leanus* Goidanich—Ravensbourne (rainforest); human excrement; few; January.
7. *O. declivis* Harold—Toowoomba; light; few; September to November.
8. *O. desectus* Macleay—Ravensbourne (rainforest); human excrement and ultra-violet light; rare; October to November.
9. **O. pugnax* Harold—Ravensbourne (rainforest); cow dung; few; January.
10. *O. anchommatus* Lea—Leyburn; mushrooms and flying during the day; common; March.
11. *O. dunningi* Harold—Ravensbourne (pasture and rainforest), Hampton, Murphys Creek, Flagstone Creek, Toowoomba; mushrooms and fish bones; common; November to February.
12. **O. australis* Guerin—Evanslea; cow dung; common; November to December, April.
13. **O. nurubuan* Matthews—Ravensbourne (rainforest); human excrement; few; November.
14. **O. auritus* Erichson—Murphys Creek; fish bones; common; November.
15. *O. walteri* Macleay—Leyburn; mushrooms; few; March.
16. *O. latro* Harold—Leyburn; mushrooms; few March.
17. *O. fletcheri* Blackburn—Evanslea; cow dung; common; November.
18. **O. waterhousei* Boucomont and Gillet—Leyburn; sheep dung; common; January to March.
19. **O. sydneyensis* Blackburn—Ravensbourne (rainforest and pasture); cow dung; common; November, January to February.
20. **O. rubicundulus* Macleay—Murphys Creek; cow dung and fish bones; common; November, January.
21. *O. sp. nr. bicarinaticeps* Lea—Leyburn, Evanslea; cow and sheep dung; few; November, March.
22. **O. granulatus* Boheman—Leyburn, Evanslea; cow and sheep dung; common; November to March.
23. *O. consentaneus* Harold—Leyburn; sheep and cow dung; common; December to March.
24. *O. depressus* Harold—Leyburn; mushrooms; rare; March.
25. *Onthophagus* sp. C.—Toowoomba; one female was taken which Matthews (pers. comm.) could not place without a male, but thought may belong to an undescribed species; cow dung; rare; March.
26. **Cephalodesmius quadridens* Macleay—Toowoomba, Ravensbourne (rainforest); fish bones; common; November to January.
27. **Monoplistes lei* Paulian—Toowoomba, Ravensbourne (rainforest); fish bones; few; December to January.

28. *Lepanus ustulatus* (Lansberge)—Ravensbourne (rainforest); fish bones; rare; January.

APHODIINAE

29. **Aphodius suberosus* Blackburn—Ravensbourne (rainforest); ultra-violet light and cow dung; common; January.
30. *A. lividus* Oliver—Toowoomba, Flagstone Creek; ultra-violet light and cow dung; common; November to February.

HYBOSORINAE

31. **Liparochrus* sp. ? *sculptilis* Westwood—Ravensbourne (rainforest); fish bones; few; November, February.
32. **Liparochrus* sp.—Toowoomba, Hampton, Flagstone Creek; fish bones; common; November to February.

Discussion

The above records are all new and when combined with those of Allsopp (1975) fill in gaps or provide extensions to the ranges of various species as given by Matthews (1972, 1974, 1976). The most interesting records are those of the five mushroom inhabiting species, *O. anchommatus*, *O. depressus*, *O. latro*, *O. parvus* and *O. walteri* taken at Leyburn. Neither *depressus* nor *parvus* were recorded as mycetophagous by Matthews (1972). All specimens were taken from two species of fungi, one of which was extremely decomposed and largely resembled a mass of faeces.

The presence of *O. latro* at Leyburn is a notable southward extension of its known range. Hughenden, 1100 km to the north-west, is the most southerly record given by Matthews (1972).

Records of the two species of *Liparochrus* in baits of dung and fish bones represent the first data on food sources of any Australian species of this genus. Overseas work on other genera of the Hybosorinae, e.g. Endrödi (1964), records various cadavers and excrement as adult food sources.

In summary 42 species of Scarabaeidae have been collected in the Toowoomba district during the two studies. Twenty-one were taken at the Ravensbourne rainforest site and nine in the pasture. Fifteen species were recorded from Toowoomba, eleven from Hampton, ten from Leyburn, eight from Murphys Creek, seven from Flagstone Creek and five from Evanslea.

References

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